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Book review

Dental Age Estimation in Sub-Adults: Striving for an Optimal Approach, Patrick Thevissen. Leuven University Press (2013).174 pp.

This 'book' submitted for review to the Journal of Forensic and Legal Medicine is unusual in a number of ways. It will help readers to understand the nature of a 'book' of this sort. It is, in reality, the collected publications of the author submitted to the University of Leuven '... in partial fulfilment of the requirements for the degree of "Dr of Biomedical Science"...' It is the usual format for continental PhDs (or equivalent) in that the submission consists of, or is based upon, published and therefore peer reviewed research work by the author, and available in the biomedical literature. This is in contrast to the usual approach in the UK where the PhD thesis is written in its entirety as a single publication from which peer reviewed publications may be abstracted. In this context the continental approach has the significant advantage of a high level of scrutiny by international colleagues fulfilling the role of peer reviewers who may or may not be known to the author. The impact of this is that each chapter is almost a facsimile of the published paper although in this particular case the chapters are '... based on the published journal manuscript...'. This is a sensible approach as it allows the authors to even out the idiosyncrasies of different journal styles to ensure a coherent narrative without losing the detail of the original publications.

The structure of the thesis is sound with a general introduction on the need for and introduction to dental age estimation methods. The second chapter is a detailed exposition of the Research Hypotheses tested in the ensuing chapters. These comprise measurements v tooth registration, regression v Bayesian approaches, 13 country specific data-sets compared, addition of tooth related data, and addition of skeletal data. This is a robust approach as it ensures that the reader is focused on these hypotheses when reading the text. The 'middle' seven chapters lay out the details of

the formal testing of the hypotheses laid out in chapter 2. These provide a huge amount of data carefully analysed and displayed in tables and graphs which enable the reader to explore in detail the concepts and difficulties of age assessment.

There is one inherent weakness. The authors did not censor the end of tooth development appropriately so the effect of inappropriate censoring is not evident. Fortunately the author came close with a top age of 22.99 years for the final stage of tooth development. Other concerns are the decision not to use the 8 stage tooth development scheme and the lack of any data for the African continent. These issues do not retract from what is a considerable achievement. The author and his book shows where further work is needed.

Is this book for the general reader or the specialist? The answer is probably both, although the general reader may wish to gloss over the detailed statistically based chapters and limit reading to chapters 1, 2, and 10.

The author is to be congratulated, along with his research colleagues, on providing an informative and well worked out series of articles brought together in this single volume.

Copies may be obtained by emailing guy.willems@med.kuleuven.be.

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